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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/737,069	12/15/2003	Seong-Min Choe	51876P440	5251
8791 7590 05/02/2005 BLAKELY SOKOLOFF TAYLOR & ZAFMAN 12400 WILSHIRE BOULEVARD SEVENTH FLOOR LOS ANGELES, CA 90025-1030			EXAMINER CHANG, DANIEL D	
			ART UNIT 2819	PAPER NUMBER

DATE MAILED: 05/02/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 10/737,069	Applicant(s) CHOE, SEONG-MIN	
	Examiner Daniel D. Chang	Art Unit 2819	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 15 December 2003.  
2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1,2,5 and 12-14 is/are rejected.  
7) ☒ Claim(s) 3,4 and 6-11 is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.  
10) ☒ The drawing(s) filed on 15 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All    b) ☐ Some \*    c) ☐ None of:  
1. ☒ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

***Claim Objections***

Claim 1 is objected to because of the following informalities: on lines 9-10, "the push-up resistance control means" appears to be --the push-up resistance adjusting means--. Appropriate correction is required.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 2, 5, and 12-14 are rejected under 35 U.S.C. 102(b) as being anticipated by Esch, Jr. et al. (US 6,064,224, Esch hereinafter).

Regarding claim 1, Esch discloses an on-DRAM termination resistance control circuit for adjusting a resistance within a semiconductor memory device that performs an On-DRAM termination operation (it has been held that a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. *Ex parte Masham*, 2 USPQ2d 1647 (1987)), comprising:

push-up resistance adjusting means (116, 110) for adjusting resistances of a first (102, 104) and a second inner resistors (120, 122) based an external reference resistor (108);

pull-down resistance adjusting means (136, 124) for adjusting a resistance of a third resistor (130, 132) based on the second inner resistor that is adjusted by the push-up resistance adjusting means; and

resistance adjustment control means (inherent circuit that generates CLK signal for 116 and 136) for controlling to alternatively repeat the operations of the push-up resistance adjusting means and the pull-down resistance adjusting means for the predetermined number of adjustment times (col. 2, lines 33+).

Regarding claim 2, Esch discloses that the push-up resistance adjusting means includes:

comparing means (110) for comparing the voltage between both ends of the external reference resistor that is coupled to the first inner resistor with reference voltage (+ of 110); and

resistance adjusting means (116) for adjusting the resistances of the first and the second inner resistors depending on the output of the comparing means (col. 2, lines 33+), and

wherein the first and the second inner resistors vary resistances thereof depending on the output of the resistance adjusting means (col. 2, lines 46+).

Regarding claim 5, Esch discloses that the pull-down resistance adjusting means includes:

comparing means (124) for comparing the voltage between both ends of the third inner resistor that is coupled to the second inner resistor with a reference voltage (+ of 124); and

resistance adjusting means (136) for adjusting the resistance of the third inner resistor depending on the output of the comparing means (col. 3, lines 10+), and

wherein the third inner resistor varies the resistance thereof depending on the output of the resistance adjusting means (col. 3, lines 22+).

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Method claims 12-14 are essentially the same in scope as apparatus claims 1, 2, and 5 and are rejected similarly.

***Allowable Subject Matter***

Claims 3, 4, 6-11 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Conclusion***

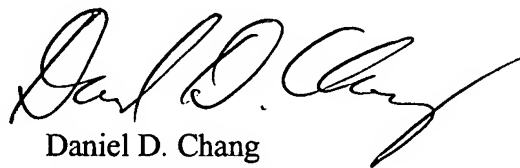
The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Mughal et al. (US 6,535,047 B2) discloses an apparatus and method to use a single reference component in a master-slave configuration for multiple circuit compensation.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel D. Chang whose telephone number is (571) 272-1801. The examiner can normally be reached on Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael J. Tokar can be reached on (571) 272-1812. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Daniel D. Chang  
Primary Examiner  
Art Unit 2819

dc

**DANIEL CHANG**  
**PRIMARY EXAMINER**